

## Claims

- 5           1. A guide wire location means (10) for locating, in use, a guide wire at an axis of a neck of a patient's femur comprising:
- a base part for securement to a head of the femur;
- 10           a part securable to the base part and spherically adjustable relative thereto;
- a part for directly or indirectly receiving a wire guide, and arranged for plan or adjustment, said wire guide receiving part being securable to said spherically adjustable part, and
- 15           sighting means including a probe having a part engagable with the head and/or neck of the femur.
- 20           2. A guide wire location means (10) as claimed in claim 1 in which the sighting means includes a sighting element.
3. A guide wire location means (10) as claimed in claim 2 in which the sighting element is a disc.
- 25           4. A guide wire location means (10) as claimed in claim 3 in which the disc is the same size as the interior of a cylindrical saw cutter which will machine the head.
- 30           5. A guide wire location means (10) as claimed in claim 1 in which the base part includes identical circular plates (11, 12, 13).
6. A guide wire location means (10) as claimed in claim 5 in which the identical circular plates have a central aperture.

7. A guide wire location means (10) as claimed in claim 6 in which the identical circular plates have there around the central aperture in their annular surfaces -equi-angularly spaced apertures (14, 15, 16).

8. A guide wire location means (10) as claimed in claim 7 in which the equi-angularly spaced apertures (14, 15, 16) are three in number.

9. A guide wire location means (10) as claimed in claim 7 or 8 in which the equi-angularly spaced apertures (14, 15, 16) are threaded.

10.A guide wire location means (10) as claimed in anyone of claims 1 to 9 in which the base part includes headed studs (17, 18, 19) which have pointed ends remote from their heads.

11.A guide wire location means (10) as claimed in anyone of claims 5 to 9 in which includes an enclosure (20) having a cylindrical lower portion (21) and a part -spherical upper portion (22), the upper portion having a central opening (23).

12.A guide wire location means (10) as claimed in claim 11 in which the cylindrical lower portion (21) of the enclosure (20) is outwardly stepped to provide an annular groove so that assembly of plates (11, 12, 13) can be located inside this open end of the cylindrical lower portion (21).

13.A guide wire location means (10) as claimed in claim 12 in which an adjustment member (26) is so shaped that it can be received within the enclosure (20).

14.A guide wire location means (10) as claimed in claim 13 in which the adjustment member has a generally cylindrical lower part (27) with a part spherical upper surface (28) which substantially matches the interior part-spherical surface of the portion (22) of the enclosure (20).

15.A guide wire location means (10) as claimed in claim 14 in which the adjustment member (26) has, from the centre of its upper surface (28), a hollow cylindrical boss (29) which projects through the opening (23) at the top of the enclosure (20).

16.A guide wire location means (10) as claimed in any one of claims 14 or 15 in which the lower part (27) of the adjustment member (26) has equi-angularly spaced slots, these slots extending partly through the upper surface (28).

17.A guide wire location means (10) as claimed in claim 16 in which there are three equi-angularly spaced slots.

18.A guide wire location means (10) as claimed in any one of claims 11 to 17 in which a circular lock ring (32) is removably attachable to the upper part of the part-spherical exterior surface of the enclosure (20).

19.A guide wire location means (10) as claimed in any one of claims 15, 16 or 17 in which a cannula guide (37) is so shaped and configured to be received by the boss (29).

20.A guide wire location means (10) as claimed in any one of claims 15, 16 or 17 in which a cannula guide is so shaped

and configured to be received by the boss when the boss (20) extends through a hole (36) of the lock ring (32).

- 5 21. A guide wire location means (10) as claim in claim 19 or 20 in which the cannula guide (37) is in the form of an elongated cylindrical body having an external circular flange (39) perpendicular thereto adjacent a reduced diameter end of the body.
- 10 22. A guide wire location means (10) as claimed in any one of claims 19, 20 or 21 in which a sighting disc extends closely through a central circular aperture of the body (38) of the cannula guide (37).
- 15 23. A guide wire location means (10) as claimed in any one of claims 1 to 4 in which the base part for securement to a head of the femur is a one-piece base part (57).
- 20 24. A guide wire location means (10) as claimed in claim 23 in which the one-piece base part (57) is in the form of an annulus having an exterior cylindrical surface (58) and a part-spherical upper surface (59).
- 25 25. A guide wire location means (10) as claimed in either claim 23 or 24 in which spikes (60) extend from the underside of the surface (58).
- 30 26. A guide wire location means (10) as claimed in any one of claims 1, 2, 3 or 23 to 25 in which a sighting disc (77) extends to the top of an adjustment member.
27. A guide wire location means (10) as claimed in claim 26 in which the sighting disc (77) is received on the end of a

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circular rod of a probe (74), the probe (74) having at its lower end a contact member (76) to engage the femur.

5 28. A guide wire location means (10) as claimed in claim 13 to 17 or 26 in which the adjustment member (62) may be manufactured in such a manner as to allow insertion of a magnetic material.

10 29. A guide wire location means (10) as claimed in any preceding claim in which the base part may be manufactured in such a manner as to allow insertion of a magnetic material.

15 30. A guide wire location means (10) as claimed in any preceding claim in which comprises magnetic material.

31. A method of locating a guide wire at an axis of a neck of a patient's femur using guide wire means (10) as claimed in any preceding claim, comprising the steps of:

20 securing said base part to the head of the femur at approximately said axis;

appropriately adjusting the attitude of said spherically adjustable part prior to fitting thereto said wire guide receiving part;

25 fitting said wire guide receiving part to said spherically adjustable part;

setting its planar position and subsequently adjusting same if necessary in response to engagement of said part of the probe means with the head or neck of the femur;

30 and inserting said guide wire directly or indirectly into the wire guide receiving part upon any adjustment of its planar position having been completed.